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| Autore | Gay Warren |
| Titolo | Custom Raspberry Pi Interfaces : Design and build hardware interfaces for the Raspberry Pi / / by Warren Gay |
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| ISBN | 9781484224069<br>148422406X |
| Edizione | [1st ed. 2017.] |
| Descrizione fisica | 1 online resource (XV, 216 p. 88 illus., 78 illus. in color.) |
| Collana | Technology in action |
| Disciplina | 004 |
| Soggetti | Computer science<br>Computer Science, general |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | 3V/5V signal interfacing -- VGA LCD monitors -- I2C LCD displays -- MC14490 and software debouncing -- PCF8591 ADC -- Potentiometer input controls -- Rotary encoders -- More Pi inputs with 74HC165 -- More Pi outputs with 74HC595 -- MCP23017 I/O port extender -- MPD/MPC hardware controls -- Custom keypads. |
| Sommario/riassunto | This book equips the reader with skills necessary to design and build custom hardware interfaces for the Raspberry Pi. A thorough chapter on interfacing 5-volt systems to 3.3-volt Raspberry Pis expands the reader’s choice of peripheral options. Ready to go C++ programs involving GPIO and I2C peripherals are provided. Explores ADC, DAC, rotary encoders, CMOS shift registers. I2C I/O extenders. Readers will discover low cost display and sensor options for embedded system projects. Master 12C communications using Raspbian Linux in C++. Perform ADC and DAC experiments. Debounce buttons and switches using hardware and software solutions. Read rotary encoders for direction and step. Develop flywheel rotary encoder effects for ease of tuning. Construct a hardware interface to the Music Playing Daemon (MPD) with developed software. Discover how to add your own hardware keypad for remote combination lock applications. |